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AUTHOR Mayhew, Lewis B.
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ABSTRACT

In a recent listing of 93 functions of higher education, the liberal education of its students, and consequently the whole process of undergraduate teaching and learning, was placed first. Similarly, a recently released comprehensive 1969 survey of 8,500 faculty members in 303 institutions discovered that 78% felt that teaching effectiveness, not publications, should be the primary criterion for promotion of faculty. Although faculty might not like to admit it, teaching methods often need to be improved in colleges and universities. Higher education is faced with a situation where the teaching methods sometimes seem antiquated, where students too often are bored or lost, and where evidence is mounting that the classroom experiences are often of the least importance to undergraduate students. The 5 essays presented in this pamphlet offer suggestions to teaching faculty in the liberal arts. The essays are: (1) Lower Division Students: An Unmet Challenge; (2) Improving Collegiate Education; (3) Innovation and Reform: Why So Rare?; (4) Evaluation Assessment and Public Accountability; and (5) A Panorama of Academic Change. (Author/HS)

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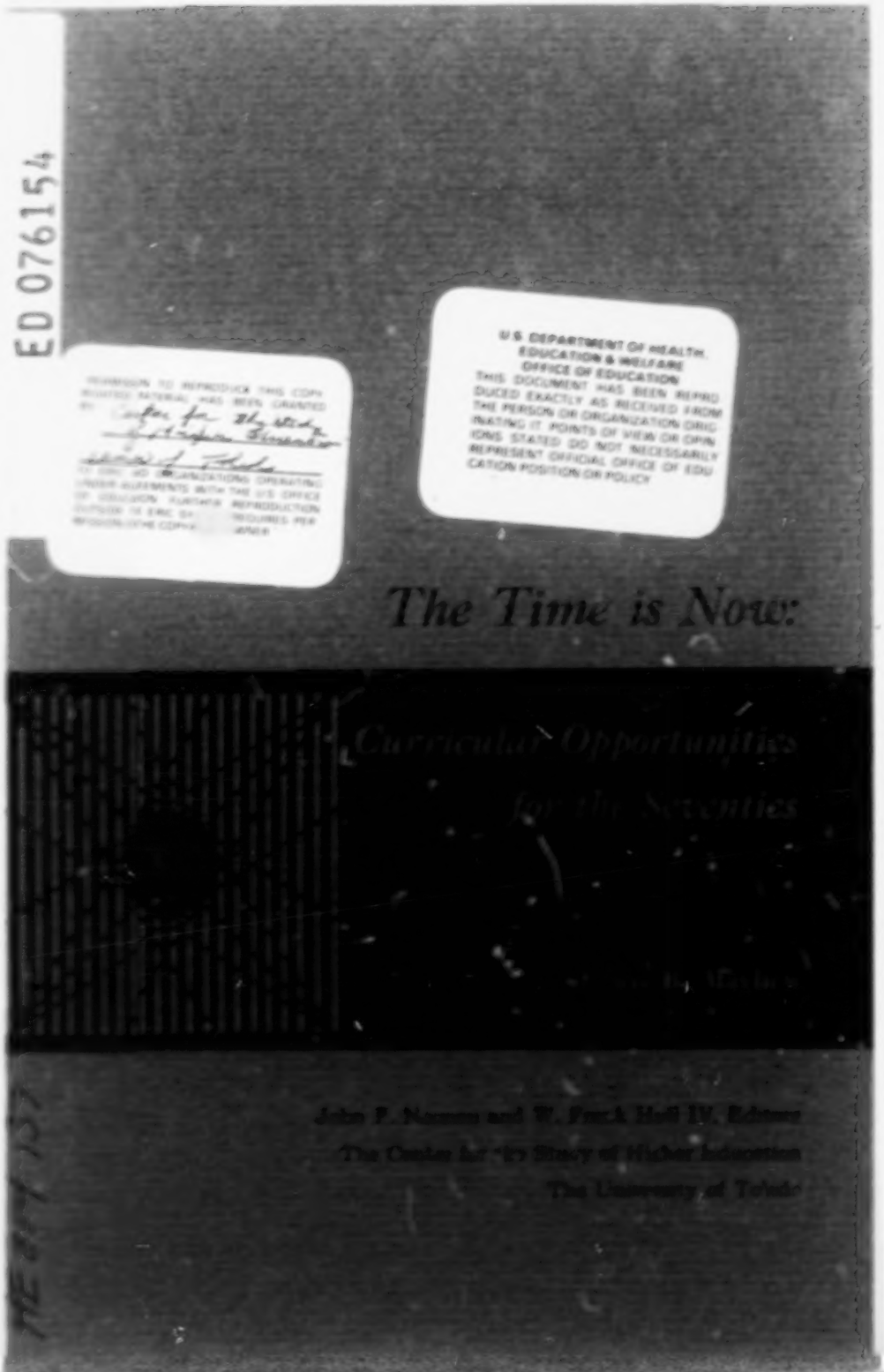
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Curricular Opportunities
John F. Nassau and W. Fred Hall IV, Editors
The Center for the Study of Higher Education
The University of Toledo

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The Time is Now:

Curricular Opportunities for the Seventies

Lewis B. Mayhew

John F. Noonan and W. Frank Hull IV, Editors

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FOREWORD

In a recent listing of thirteen "functions of higher education," the "liberal education of its students," and consequently the whole process of undergraduate teaching and learning, was placed first.* Similarly, a recently released comprehensive 1969 survey of 8,500 faculty members in 303 institutions discovered that 78 per cent felt "teaching effectiveness, not publications, should be the primary criterion for promotion of faculty."† The percentage, to be sure, varied by academic discipline, but even when the data are analyzed by the type of institution in which the faculty teach (i.e., degree of emphasis on research by doctoral-granting institutions, non-doctoral universities, liberal arts colleges, and two-year colleges, academic discipline, or age) research activity was rated quite low.

Serious discussion, sometimes even outright controversy, about teaching and learning has been with us at least since the time of Socrates. There always seems to be some young, or old, "Turk" around who has a "feeling" that he or she could improve the way you and I are teaching, and most of us develop a quick gut dislike for that person. However, we in higher education are faced with a situation where our teaching methods sometimes do seem antiquated, where our students too often are either bored or lost, and where evidence is mounting that the classroom experiences we provide are often of the least important (and maybe, least lasting) influences on our undergraduate students.

The five essays contained herein are the words of one man—highly edited but hopefully not altered—to teaching faculty in the liberal arts. It is our pleasure to share them with you.

W. Frank Hull IV, Director
The Center for the Study of Higher Education
The University of Toledo

N.B.: Special thanks are due to Marshall W. Davies for his patient and painstaking labor in seeing this manuscript through to fruition.

*Alan Pifer, "The Responsibility for Reform in Higher Education," **Annual Report**. (Carnegie Corporation of New York, 1971).
†The Carnegie Commission on Higher Education, **Reform on Campus**. (New York: McGraw-Hill Inc., 1972), pp. 80-82.

PREFACE

These five essays, while hopefully consistent with other things I have written about education, indicate some modifications of my thoughts in the light of changing conditions. Thus formal evaluation is considered in some detail, an inclusion which would not have been made at the end of the 1960's. Considerable use is made of innovative practices in professional schools largely because those schools have become the most innovative level of collegiate education. Not as much stress has been placed on the developmental needs of students, not because I have altered my belief in the significance of that point of view, but because I have elaborated those ideas elsewhere.* Considerably greater stress has been placed on teaching than I have done in recent years because, while I believe that the profile of college teaching leaves much to be desired, the time seems ripe for great breakthroughs to happen.

If these essays have an informal style about them it is because they were presented originally as a series of five lectures delivered from notes. The occasion was a three-day workshop for liberal arts faculty cooperatively sponsored by The Center for the Study of Higher Education of The University of Toledo and Findlay College in December, 1971. My thanks go to those institutions for inviting me to participate and for the opportunity to crystalize my thoughts about these critical matters.

A collection of essays such as this is obviously not intended as a definitive statement about complex phenomena. Rather it is intended, as the original lectures were intended, to stimulate college faculties to consider rationally problems of curriculum and teaching and hopefully to improve both.

Lewis B. Mayhew
Professor of Education
Stanford University

*Lewis B. Mayhew and Patrick J. Ford, **Changing the Curriculum** (San Francisco: Jossey Bass, Inc., 1971).

At present opinion is divided about the subjects of education. People do not all take the same position about what should be learned by the young, either with a view to excellence or with a view to the best life; nor is it clear whether their studies should be directed mainly to the intellectual or to moral character . . . Each kind of study gets some support. Even about those that make for excellence there is not agreement, for men do not all honour the same excellence, and so naturally they differ about the proper training for it.

Aristotle
Politics VII

I

LOWER DIVISION STUDENTS: AN UNMET CHALLENGE

Given what is usually done to students as they enter college, it is a wonder that any of them stick around to graduate. A lot of them do not, as the attrition figures make clear. Generally speaking, over the past four or five decades, half of the students who begin as freshmen do not graduate four years later. That may seem appalling, but when you consider the degree to which we have failed to meet some student needs, it is a wonder that the attrition rate is not substantially higher.

Lower division students, 17 to 19 years old, need a substantial change from high school. They need a chance to expand their impulse life, their affective life, their use and enjoyment of emotion. They have gone through high schools which, for the more precocious students particularly, have virtually denied affection and ignored any subjects which deal even remotely with impulsivity. Yet when they arrive on campus, they are given a narrowing curriculum. After high school regimentations, clearly rationalistic and disciplinary for the most part, the student comes into college and experiences the same sort of curriculum.

Imagine an entering freshman in a liberal arts program. He is faced with a course in rhetoric or communications skills, a course in inorganic chemistry, a course in mathematics, a course in foreign language, and, very likely, a chronological course in history. All five are highly rationalistic, all five are disciplinary, and all five virtually preclude his experiencing, in any curricular sense, the affective or impulsive life which he really needs.

Despite the lofty rhetoric used in college catalogs, all too frequently general education courses are irrelevant to lower division students. During the 1960's, a number of institutions tried to create courses in social science. Instead of dealing with contemporary issues, these courses became

hopelessly logical and rationalistic, mired in an effort for academic or scientific "respectability." If they managed to avoid this fallacy, they then stumbled into the other fashionable one . . . taking a professor who is trained in English, placing him in a course in humanities which expects him to interrelate literature, philosophy, and the fine and applied arts. Inept teaching is the typical result.

The emphasis during the 1950's and 60's on general education denied vocationally inclined students a chance to experience their major, thus robbing them of one way to find relevance. Faced with a horrendous load of general education courses, many freshmen feel frustrated because they are making no apparent progress toward their goals. In junior colleges, for example, students who properly ought to enter technical and vocational programs, who could gain a great deal of satisfaction from these programs, are forced instead to take general education requirements which are often a replay of high school work in which they already have experienced substantial failure.

In a number of junior colleges, this is at least partly responsible for the high attrition rate. In California, for example, there will be this fall about 300,000 students entering as freshmen in the California junior colleges. Next fall only about 90,000 of them will be back as sophomores. There are many reasons why this happens, but one reason is placing students in inappropriate general education courses.

The plight of lower division students is compounded because their teachers are usually the young inexperienced or the superannuated. I recently saw a lovely program in general education at a southern university which was based on a beautiful but impossible principle. The program would draw on the best intellectual resources of the whole academic community so the most outstanding people would teach the introductory courses in the lower division. This worked for one year, but by the second year the Olympians had gone back to Olympus, and these courses were taught by the young inexperienced, the part-time, or the ancient. At another university, 8,000 students are enrolled in experimental psy-

chology and no senior professor is associated directly with the program. Basic transmission of information is handled by television, while the teaching assistants, who could conceivably give some spark to the course work, are relegated to passing out syllabi and collecting and grading examinations.

The institutions, dissatisfied with interdisciplinary general education programs or unable to mount them, have opted instead for the distribution system, requiring a set number of courses in social sciences, natural sciences and humanities. Too often, however, these have not been geared to the needs of the non-major. The classic chemistry course is intended primarily for the person who is going to go on in chemistry. The needs of the non-specialist are overlooked, despite the fact that he outnumbers by far the specialist.

Although younger college students need constant feedback to test their emerging identity, the normal pattern is for us to give very little of it. Recent research has shown that students who by any criteria are the most highly qualified academically, who on the surface appear quite sophisticated and sure of themselves, are actually highly uncertain underneath. They are seaching for ways of establishing their identity and they need continuous feedback on their progress, socially as well as academically. And yet, academically we normally give feedback twice during the semester: the mid-term, which is traumatic, and the final examination, which does not do any good. In spite of impressive evidence of the power of immediate feedback for reinforcement, we have not provided this feedback for them.

It seems clear that younger college students need help in affecting the transfer of their relationship from parents to other important adult figures. The doctrine of in loco parentis is dead, thank heaven! But the need for parent surrogates is not dead. Interviews with students and their own writing and speaking show clearly the need for parent surrogates to assist in this transfer. Yet in most of our institutions we simply have not been willing to deploy our resources to provide this help. The truth is that students

need at least one mature professional person, an adviser, a dean or a counselor, with whom they can interact on a consistant and intimate basis. Institutions which have provided them have become some of the most highly effective institutions we have. But for the most part, our institutions simply have not deployed resources to meet this need.

Freshmen come to college expecting something exciting and new. George Stern, using the college characteristics index, found that colleges do differ significantly in their environmental press. Some colleges have a vocational press; some colleges have an "intellectual" or "academic" press; some colleges have a "play" press. Colleges do differ substantially, but the important point is that when Stern administered his college characteristics index to large numbers of students before they reached college, they all typically expected to find the "intellectual" and "academic" press. They expected colleges to be like college catalogs say they are. But when they got to college, they found it radically different. All too frequently they found a rehash of high school.

In times of increasing personal freedom, college freshmen still find their lives regulated in seemingly capricious ways. In too many institutions there are double standards with respect to the sexes. There is too much checking in, too much regulation of class attendance, and the like, which is inconsistant with the way they see life developing all around them.

There is mounting evidence of the ineffectiveness of all the practices I have cited. There are some conflicting strands of evidence, but the prevailing thrust of the evidence of the impact of colleges on students is that they are not very influential. At least they are not very influential with respect to the elements of the college to which we devote the most resources and attention. Teaching and the curriculum studies show we are relatively ineffective in affecting student development. The single most important thing that changes people on college campuses is the peer culture.

Why are colleges not meeting some of these needs of students? First, there is the nature of the college professor himself, a very peculiar breed of cat. He *drifts* into college teaching. He does not plan to become a college professor, he does not have a role model as a youngster in the way that the youngster who wants to become a doctor, or a lawyer, or an architect has. My former colleague at Stanford, W. H. Cowley, claims that there is no such thing as a profession of a college professor. Let's look at the college professor to see how he gets the way he is, because I think it explains much of the malfunction which we see in our institutions. As a child he was bright — you can believe that or not — but he really was. He was a highly intelligent kid who early became interested in books, or butterflies, or telescopes. He enjoyed this activity, and as his interests grew, he tended to turn away from group activities. The more he turned away the more groups rejected him and so he emerged as an isolate. He was stimulated more by working individually than by more gregarious kinds of activities. He became preoccupied with his books, his rock collection, his butterflies, and then he moved on into college where he could study more of it. He still did not know how he was going to use this vocationally but he did not really care. Toward the end of his baccalaureate years or the first of the graduate years, he discovered that the best way he could be supported to do what he wanted to do was to go into teaching. So he went into college teaching because it gave him the resources needed to continue to study with his books, his telescopes, and his butterflies. He now does not view himself, as a doctor does, as someone who is directly concerned with the development of a client. Rather he views himself as working with the client in order to have an opportunity to exploit his own interests.

Thus faculty members create courses and programs because they believe that what interests the professor should interest and should be of value to students. Just because someone happens to be trained in the American Civil War and military history, it is obvious that a good course on Clausewitz or a good course on the military campaigns of 1861-62 should be a part of the general education require-

ment of all students. This, of course, is a questionable assumption, but many professors do build courses as though what interested them — books and butterflies and the like — ought properly to interest students.

Then there are the fads of education. In the last seven or eight years the precollege-reading-list fad has developed. The faculty picks out a group of eight or ten paperback books and sends out a memorandum to freshmen before they attend:

> During this summer, to get ready for the intellectual life you are going to experience, you ought to read these eight or ten paperbacks which are available for sale at our bookstore. If you will just fill in the order form and send it to us, you will come ready for this new experience.

My observation is that students quite dutifully buy these but do not read them, because for the most part the books are selected by narrow professional interest. Very little of the contemporary finds its way onto these reading lists. They are in the mould of the classics, revered but unread. Because they interest the professor, the fallacy goes, they should interest the students.

Third, there is a decided limitation on the techniques of instruction used, despite the enormous range of information available which shows how people learn and change — information generated by psychiatry, psychology, sociology, anthropology, for example. Despite all this, we typically still use the same old methods: the lecture, the lecturette (which is a lecture with two questions asked), discussion, or laboratory (which in the early years is primarily training for glass breakage rather than anything else). To a very large extent, our learning-teaching strategies simply do not reflect the gains made in recent years in our understanding of human behavior.

Fourth, lower division students are too frequently used as a budget base on which to erect upper division courses. Possibly this may change, though. In the last four or five

years economists have been finally turning their attention to the detailed study of higher education. However, adequate analysis will most likely show that lower division students have taken the place of the underpaid professors of the first half of this century. Underpaid teachers during the first half of this century represented the biggest single philanthropy in higher education because they would accept marginal wages in order to do what they wanted to do, and, in effect, they were subsidizing the students. Up until the early 1950's tuition in most institutions was quite modest, even by current public institutional standards. But the movement toward increasing faculty salaries and the movement away from dedicated service which began in the late 1950's have moved the professoriate away from this supportive role. That role now has been taken over by lower division undergraduates. In the case of the private institutions it is through tuition; in the public sphere, through full-time equivalents. An institution has to teach so many freshmen in order to support the more specialized work with upper division or graduate students where creativity in teaching methods is more encouraged.

Fifth, there is the dead weight of traditional requirements whose values may never have existed but which are still maintained. A few changes are coming about, but they are slow in coming. The foreign language requirement, to cite one, in recent times has been a meaningless requirement producing neither people who are literate in another language, nor insightful in a different culture, nor any more aware of the structure of language than those who have never studied foreign languages. Yet the requirement remains in most institutions. The ridiculousness of the situation becomes apparent when you look at those institutions who modify the foreign language requirement by allowing the students the option of choosing either language or some other "nasty" subject, like mathematics. As long as it is unpleasant, it can satisfy the requirements. Dartmouth decided several years ago to continue the foreign language requirement, but determined to make it more meaningful. They introduced the "immersion method," a strategy their 3-3 calendar could

easily accomodate. Students take 1/3 of their work in language in each of the first two terms, and 2/3 in the third term. The third term contains a great deal of immersion into the foreign culture itself. That advantage, together with the use of undergraduates as an important part of the teaching process, enables students at the end of the first year to achieve at a third year level on national norms.

Sixth, to return to professors for a moment, all too frequently they are really not very exciting people, nor are they really much a part of the mainstream of American intellectual life. Is the academy, the American university, really the pivotal intellectual institution in this society? My own observation is that increasingly much of the reseach, much of the thoughtful analytical writing, much of the criticism of current society, is coming not from the academy, but from outside. Even our strongest graduate schools are not producing research. Rather they are training research people who, while they themselves may be stimulated by the academy, do not stimulate it. No wonder professors appear not to be very exciting.

Seventh, the model of the graduate school seems overpowering. The graduate school trains professors, and most of them never get beyond the bad teaching habits they were exposed to there. It is a vicious circle.

But there is hope. In some institutions changes are beginning to take place. In fact, things seem more optimistic now than at any time in the last quarter century. Today, some faculty members have been dragged reluctantly into seriously considering undergraduate education. In the most unlikely places suddenly the teaching of undergraduate students has become important and institutions are trying a range of things. Antioch's new freshman year program, which frees students from all requirements, which allows a great deal of individual tailoring of programs, which allows students to take the curriculum "underground," if you will, to fashion the curriculum to what they want rather than what the professor wants, is one of the more exciting developments in higher education. I'm not going to argue that this

should be adopted across the country, but it illustrates a key principle. It is designed so students spend time assessing themselves and planning what they want to do. Then they spend time doing it. Is this such a strange notion for education to incorporate? But the notion was highly threatening to the faculty at first. Today, a look at the mounting evidence which has accumulated through five years of experimentation suggests that at Antioch the program is working. Students are learning to use their freedom wisely.

At the University of Southern California there is a science course for non-scientists and it is a success. It is an expensive program, but it is also effective. It is called the "biological semester." Students who were going to major in various things, like urban studies, signed up for 16 hours of biology in one semester. This deep immersion in biological science is organized around four major themes, highly problematic in orientation, making great use of a variety of resources, both on and off the campus, and exploiting small group experiences. These students in the program have to be forced to stop talking — they are so enthusiastic about relating what they learn in biological sciences with the "real problems" of society.

At Keuka College, after experiencing a fairly substantial drop out rate at the end of the freshman year, faculty and administration tried to do something about it. They discovered first of all that students living in residence halls could identify potential drop-outs, and that if they were put through a sequence of weekly consultation meetings with their peers where the discussions could focus on the problems of survival in an academic community, this attrition rate could be remarkably attenuated.

In the first year of the experiment the normal attrition rate for the whole institution was about 23%. The attrition rate for the control group of potential drop-outs was about 30%. The attrition rate for the experimental group which had this peer counseling dropped to around 11 or 12%

At Southwestern State (Texas) undergraduate students were given some intensive training in guidance and they managed to salvage a high proportion of academically risky students. For institutions faced with high attrition rates, the results of these two experiments are encouraging.

There are several general principles to be derived from all this which colleges ought to take seriously. First, we should study and take seriously the growing literature about college students and their developmental needs. In the 1940's and 50's when we began to develop new general education programs, we had a great deal of "hunch" about what college students were like. We guessed at the effects of college, but we had precious little knowledge. But since Philip Jacob's pathfinding book, *Changing Values in College*,[1] the amount of evidence about college students and their development has crescendoed. We can now go to such compendiums of research as Feldman and Newcomb's *The Impact of College on Students*.[2] If educators are seriously interested in learning more about their students, the growing body of literature in the field of higher education will provide them with many answers. If they take the research seriously, the curriculum will look different, particularly at the lower division level.

Second, improvement requires a great deal of planning for the entire program and for individual courses. Perhaps institutions might seriously reconsider their whole budgeting procedure to allow much more time for the professor to spend planning. If he is to become a manager of learning rather than the constant in-front-of-class sort of person, planning time is imperative. The professor could spend much more of his time planning, organizing and managing, and much less of his time in actual confrontation. Every successful "innovation" in existence makes some provision for persons to spend adequate time becoming proficient with whatever they are going to use. Should not colleges do likewise?

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[1]P. Jacob, **Changing Values in College:** An Exploratory Study of the Impact of College Teaching (New York: Harper, 1957).

[2]Kenneth A. Feldman and Theodore M. Newcomb, **The Impact of College on Students**, Vol. I (San Francisco: Jossey-Bass, Inc., 1969).

Unless we care next to nothing about undergraduates, these and other suggestions deserve serious consideration by faculty and administrators. Students, particularly freshmen and sophomores, deserve to be more than economic pawns in a highly impersonal chess game or left to survive if they can until they reach the upper level or graduate work where they theoretically merit more attention.

II

IMPROVING COLLEGIATE EDUCATION

Undergraduate education is a stable experience in most American colleges and universities and as such is not very effective. While it is true that students do "change" after four years of college, such changes that occur seem almost independent of what colleges do to produce change. In fact, the qualities, traits, and predispositions of students as they enter college reinforced by the various informal associations with other students appear to be the most significant factors influencing the changes that a student will go through during those four years. As we have been reminded, " . . . college faculties do not appear to be responsible for campus-wide impact except in settings where the influence of student peers and of faculty complement and reinforce one another."[3] Instead, "the degree and nature of different colleges' impacts vary with their student inputs — that is, entering students' characteristics which differ among types of colleges in patterned ways."[4]

Nonetheless, since collegiate education is so expensive, so highly regarded, and so potentially significant for a young man or woman today, curricular and instructional reform remain worthy ideals. Yet, while both curriculum and instruction should be improved, instruction is the more significant and should be changed first.

Instruction is so loosely defined that there is serious question as to whether or not it can be changed or improved. For despite evidence of changed practices in other professions, the methods and procedures of professors in American college classrooms have not changed much since the latter part of the nineteenth century when recitation and drill gave way to instructional techniques developed in German universities. Lecturing is still the prevailing mode even when, as is true at most times, it is inappropriate. Discussions, whether in seminar or the classroom, whether student-di-

[3]Ibid, p. 330.
[4]Ibid, p. 327.

rected or faculty-directed, are generally without focus and conducted without much apparent forethought. Laboratory work, which many critics judge to be excessive in the light of actual or potential gains, looms over many students' heads as something dreary and routine. There is a real question today whether the typical science laboratory in most colleges develops any of the insight or understandings of the methods of science.

In the 1930's, instruction at one particular university could be epitomized thusly: Large lectures were presented by weak-voiced professors to students drowsing in overheated and uncomfortable lecture halls. Junior faculty conducting discussion sections in those same courses either delivered mini-lectures or drilled endlessly on dates, titles, or taxonomies. Professors in the more active foreign language classes led students in off-keyed and ill-pronounced simple songs and recitations.

Unfortunately, in 1972 at that same institution not much seems to have changed. To be sure it was true that "Plato" (a multi-thousanded outlet computer-based instructional unit) operated on that same campus, but in the regular classroom buildings instruction went on as before. But perhaps that statement is overdrawn. In the large lecture rooms, the lecturer in 1972 did use a voice microphone, and hence his electronically fuzzied voice did reach the outer limits of the lecture hall, but the students still slept, doodled, or stared blankly at the walls. Discussions were similar although they were now more likely to be led by young, long-haired teaching assistants rather than by young instructors. Change, however, had not really taken hold, for the several classes of language instruction viewed seemed to have changed not one bit.

It is true that some research has been conducted on college teaching and instruction, and while, for the most part, results comparing various methods of instruction reveal findings of no statistical significance, a few appear promising — the program uses of closed circuit television, early entry and acceleration programs, and utility of computer-assisted

instruction in teaching such things as genetics. Yet, for the most part, results have unfortunately had little lasting impact on prevailing styles of instruction. It is almost axiomatic to say that once a subsidized experiment has been completed, the results compiled and filed, instructional life returns to a staid normality.

It is also true that a number of philanthropic foundations have been sensitive to needs for improving instruction and have supported some rather innovative attempts. Graduate students have been provided teaching experience and seminar work on the nature of pedogogy and have been encouraged to use videotape as a device for judging themselves and gradually changing their methods. Both foundations and national organizations have convened committees, commissions and panels, discussed the issues in teaching, and produced reports generally consistent in the recommendations made. In fact, there is an amazing consistency in such reports which recommend that institutions should engage in "evaluation," alter the "reward structure," and allow each teacher to improve his own idosyncratic patterns. Polemical writing abounds, ranging from seminar reports from the Carnegie Foundation deploring the flight from teaching to presidential utterances at the opening of the school year and commencement addresses, at the end of each, extolling teaching. In addition, a few recent conferences have stressed college and university teaching. In spite of all these activities, the main bodies of faculties are immune to persuasion to reform.

One also has the curious fact that among institutionally stated priorities, teaching and instruction generally are assigned first place. Subsequently, catalog statements and even photographic essays on the campus try to give equal time to instructional scenes, athletic events, and pulchritudinous co-eds.

However, in places which count, a different story emerges. Rarely do faculty members talk with each other about their classroom experiences or their attempts to modify

instruction. Education, when discussed, is more likely to be couched in the idiom of gossip or campus politics rather than that of changing human behavior. The instructor until recently has not even figured large in the processes by which academic and professional rewards are distributed. Personnel records, even for teaching-oriented institutions, assign the real value of teaching by listing it mid on the list which includes publication, research, service to the profession, service to the institution, administrative services, service to the community, honors, and then teaching effectiveness.

Comparisons of the ideal of college instruction and a far-too-frequent reality is almost a parody. One constant but romantic expositor about teaching claims that a teacher is many things. He is a modernizer, a bridge between generations, a model, and an example. He is a searcher, counselor, creator, and stimulator of creativity. Although he must, from time to time, serve as an authority and a doer of routine, he is also an inspirer of vision, a storyteller, an actor, a scene designer, and an architect for a sense of community. Along with students he is a learner, a facer of reality, an emancipator, and one who redeems or saves.

But the ideal compared with episodes of reality suggests something else altogether. Consider the professor at a midwestern university teaching a course in the humanities which met three hours a week for a semester and enrolled forty-five students. On the day in question, the tone was set when he ejected a student entering the classroom just as the bell rang, then proceeded to the day's business of student reports. During the hour, three students each read a report couched in encyclopedia style language. At the end of each, the only audible sound was the scratch of the professor's pen as he inscribed a grade. This was a course designed to elicit an affinity on the part of students for the great Western tradition. Or consider the physics teacher at a strongly scientific, midwestern liberal arts college who faced the blackboard at the beginning of the class hour and in small, scarcely legible figures inscribed three proofs during the hour. At the end of each proof, the professor quickly

turned to the class with a query, "got it?" in a voice slightly above a whisper. What about the French teacher in a liberal arts college who was delivering a prepared lecture in English to the three students who had enrolled for advanced "conversational French." These examples could be considered caricatures were they not so prevalent.

The question is why should this dismal picture be so true? Why should something as potentially significant as collegiate instruction prove so ineffective and why should the processes of teaching and instruction prove so resilient to change? Several answers are, of course, possible. The first simply argues that collegiate education, in somewhat the form we now know it, has existed for 800 years. The wisdom of the ages has produced our styles of telling, explaining, criticizing and evaluating in the form of lecturing, discussing, and testing; no further techniques are really appropriate. Such a position might at first blush seem to be extremely precious and self-assured. There is also the tenable proposition, mentioned above, that the corpus of existing research which ends so typically with no significant differences may be valid and that the professor's instinct to remain traditional has shown what research on college teaching has simply validated: that technique seems to make no difference so professors merely leave things as they are.

A second explanation is that the act of teaching or instruction is such a statement of personal life or style that asking the professor to change is tantamount to asking him to change his own basic personality. If a professor has constructed his life on the premise that his knowledge of a subject epitomizes the thoughtful and examined life, asking him at the age of forty-five or fifty-five to shift and embrace encounter groups, field experience or tape-recorded presentations is asking him to deny the essential habits of his existence.

Professors typically have no good evidence available to themselves as to how they perform, except by their own judgments. The professor, unchecked by outside criteria,

feels that on some days he succeeds, some days fails, and some days neither helps nor hinders. Since, for his own psychological stability, he must find more pluses than minuses, his judgment about his own teaching performance must be that he is effective.

Then there is the ubiquitous reward system. While it is true that some 80 to 85 per cent of the American professoriate never does do research or publish, it is also true that the reward system also undervalues teaching performance. In major universities, being an *effective* teacher is not necessarily harmful, but being an *ineffective* teacher is clearly of no consequence if one has the reputation of being an effective scholar. Whether the institution be a junior college, a liberal arts college or major research-oriented university, the myth of "publish or perish" is determining. The "publish or perish" syndrome is a myth but it is also a reality.

Then there is the sheer difficulty of trying to contrive teaching to achieve definite objectives. No one who has examined Ralph W. Tyler's *Basic Principles of Curriculum and Instruction*[5] can seriously minimize the problem. To state broad objectives, refine them into statements of actual behavior, think up and then organize relevant learning experiences, construct valuable and reliable evaluation techniques and then ponder whether the initial objectives have been achieved or not, is enormously difficult and time consuming. It is much easier to sit in one's study, outline a subject the way one's own logic dictates and then move on to class assuming that if one's students do not catch the majesty and symmetry of one's presentation, then the students are at fault. It is even easier to begin to believe that one is completely the master of a subject and that what comes mumbling out in class is really sophisticated and sensitive thinking.

Much less documented but still potent is the fact that professors may not change because they need to use the professorial role to satisfy deeply imbedded psychological

[5]Ralph W. Tyler, **Basic Principles of Curriculum and Instruction.** (Chicago: The University of Chicago, 1950).

needs. Thus, the professor who will lecture even though to only three students may very well be accommodating a need for dominance. The professor who "raps" with students may be exhibiting a basic need for disciples and for love. One has the feeling that professors during the 1960's who adopted the hair style and dress of radical students were manifesting a deep need for love and affection. The dynamics went something like this: The professor was saying, in effect, to radical students: "See, I love you so much that I even dress and speak as you do, no matter how much it violates the rational tradition from which I derive." And then there is the matter of calvinism, be it protestantly or catholicly produced. Professors deriving from the calvinist tradition feel that they must continue to work, i.e., be in front of a class, or else they cannot possibly be of the elect. This calvinistically defined academic conscience is what produces the three to five hours per week of bad lecturing, whereas it might be possible that the same professor could deliver one good presentation each week and accomplish more than he now does all week long. And then there is the notion that professors as human beings have many shortcomings; but, having been trained as proteges and incipient Nobel laureates, they cannot tolerate human failure in themselves. Thus, student procrastination is severely proscribed, partly because of professorial fear of sloth in themselves.

Finally, instruction may not be amenable to improvement because there really is no such thing as a *profession* of college teaching. The definition of a professional is reasonably clear. A professional is one who possesses an esoteric knowledge gained through education which allows him to render services important to people according to his own criteria and conforming to his own system of ethics while reinforced by his colleagues. Such a model most closely conforms to the medical docter. However, if one applies this to the college teacher, it does not allow for his most typical professional activity, that of appearing in a classroom to meet professional expectations. He does not possess an esoteric body of information as to how a classroom is conducted. He has not been prepared through education to do

this in the sense that a doctor has been prepared to use his stethoscope or the priest to use his holy water.

Although what has been presented is a gloomy picture, the quest for improvement of collegiate education must go on. What now remains to be done is to share with you some developments of curricular reform, illustrated primarily from the professional fields, and, by implication, to suggest ways by which the process of pedagogy can be improved. Professional reforms are needed because the professional schools in 1972 seem far in advance of the schools of arts and sciences. Certainly they are far ahead of graduate work in arts and sciences.

The first tendency in all fields whether it be in medicine, law, business, education, or engineering, is to try to include greater amounts of clinical or field experience and to place it earlier in the student's curriculum. This takes the form, in medical school, of having young medical students in their first year (in the case of Yale Medical School, six weeks after enrollment; in the case of Case Western Reserve, freshmen at point of enrollment) brought into contact with clinical situations long enough to develop some clear motivation and to taste the humanness of the profession. In engineering it takes the form of replacing design back in the freshman year. Engineering is a good case in point of what happens when things swing too far. In the 1950's, spurred largely by a series of reports, engineering schools went along the engineering science route until they reached the point where a freshman or a sophomore in engineering never really had any ideas as to what it was like to be an engineer. His freshman year was consumed with mathematics, physics, chemistry, and English, but he never had a chance to feel what it was like to be an engineer facing a problem.

The second general area of reform, which is potentially helpful for this matter of improving education, is to look to contributions in the social and behavioral sciences. Hence, the education of lawyers now is embracing economics, soci-

ology, and anthropology. Medicine, in place of relying primarily on psychology, now has a tendency to look at sociology and anthropology also. The engineer now recognizes that an engineering problem is not solved by design alone but by considering the problems of human beings while trying to bring in social and behavioral elements.

Third, a tremendous interest in expanding flexibility is now evident. In any number of professional fields, up until recently, the curriculum was basically prescribed. In engineering if a student missed one course meeting at a given hour he might well have jeopardized his whole baccalaureate program. In the case of law, it was assumed that since everybody had to pass the bar exams everybody should take three full years of the same courses. But the swing today is toward greater election. In the case of some of the reforming law schools, two years of elected courses and only one year of prescribed courses are acceptable. In the case of medicine, a good third to a half of the last two years is openly and freely available to the student to use in any way he sees fit.

A few of the professional fields, sensitive to student needs to develop a more humane approach to the profession and to develop a personal and professional set of ethics, have turned to the humanities. In schools of engineering, for example, one-fourth of the full engineering curriculum is a humanistic four-year sequence.

There is considerable awareness today that departments, while they have done many good things, are fundamentally divisive, and consequently there is a very strong movement within the professional fields to find a substitute for "departments." This is related to the substantial interest on the part of professional schools to develop interdisciplinary work of some sort. The epitome of this is at Virginia Polytechnic Institute. The institution wanted to have a doctoral program in computer science and at the same time it wanted to make use of the theoretical and mathematical competence within the arts and sciences unit, as well as the hardware sophistication in the school of engineering. It was simple:

bring the engineering faculty and arts and sciences faculties together and have them offer this new program. The engineering faculty was willing to yield, but the arts and science faculty, being true to its tradition of intransigence and plain stubbornness, refused to budge. It appeared that the only option for the institution was to say a plague on both their houses and create a brand new interdisciplinary computer-based unit with new people.

There is considerable interest in changing degree structures in order to regularize them. The most recent study by Steven Spurr analyzing degree structures has come up with a model which is being looked at seriously by some of the professional fields.[6] The model says that the intervals between degrees should be approximately equal. Therefore, the difference between high school diploma and associate arts degree should be about two years, about two years for the baccalaureate, about two years for the next degree, and so forth. There should be a limited number of degrees, but each degree should be sufficiently flexible to permit persons to move in a number of ways. But if you follow Spurr's arguments, he would suggest that the doctor of arts degree probably is not the best way. Rather, the Ph.D. degree should be reformed so that you could have several options: teaching, pure research, and the applied fields, as in the case of mathematics or chemistry.

The last one of these reforms that is of interest is an independent study which makes use of tutorials, or of hardware. Somehow one gets the feeling that much of the bad pedagogy in almost every institution in this country derives from professors trying to teach too much. The improvement of instruction in the professional fields can perhaps come most easily by having students assume a much greater responsibility for their own learning and then using professors in quite different roles.

These curricular reforms provide a context for improv-

[6]Stephen H. Spurr, **Academic Degree Structures: Innovative Approaches** (New York: McGraw-Hill Inc., 1970).

ing instruction and if actually implemented could so disturb professorial thinking about education as to focus attention on the process — which is to say, on teaching. But even more specific efforts are also needed.

The first and most important of these is evaluation. Virtually every major pronouncement on the subject of the improvement of instruction has urged that evaluation with student opinions, class visitations and the like, be utilized. Further, there is the argument that those responsible for judgment of teaching faculty be required to make definite statements about teaching ability before personnel changes are considered. A faculty committee at the University of Toronto flatly recommended (similarily also at the University of Rochester and the University of Wisconsin) that no recommendations for promotion, retention, or tenure would be considered until the recommending administrators made definite statements about instruction. Just the fact of requiring such statements would force a consideration of the problem of evidence and a search to acquire relevant information.

A second direction of reform will be found by reducing the amount of time actually spent in lectures, discussion groups or laboratories. This country's largest consumer of talent, television, has discovered that thirteen half-hour exposures a year can deplete the creative energy of all save the greatest superstars. Yet a professor teaching the modest load of two courses per term is expected to be creative for 90 hours each term! This probably transcends the capabilities of even the most vibrant of intellects. The previously cited University of Toronto report urged that no professor be allowed to deliver more than one lecture per week per course, that discussion sections and laboratory sections be cut in half, and that no laboratory section be allowed to meet more than once a fortnight.

One cannot be sure whether any of these suggestions will work or whether the curricular reforms will pay off, but they are worth a try. Certainly in the past nothing else

has really succeeded. Yet, in addition to the above, other broad postures might be discussed and possibly gradually assimilated into educational thinking. The first is the evolution of the concept of a professor as a member of a "helping" profession.

The past statements of ethics and principles governing the conduct of the professoriate have tended to focus on the professor's role as a researcher and scholar and are intended basically to protect his rights. But actually the vast majority of college professors are not researchers nor, in the publishing sense, scholars. Their total professional activity is in dealing with young people and a set of ethics should be developed focusing on how the professor relates to and helps those he teaches.

As a basis for such a system of ethics, there should be evolved the concept of universities as professional service rendering agencies. While currently many of the techniques for rendering services are primitive, nonetheless the concept should be developed that the professoriate is the means by which the university offers its services and the various instrumentalities (whether they be lecturing, encouraging students in field service, independent study, or whatever) as professional techniques selected through application of professional criteria.

The next is quite a dangerous doctrine which posits that the changing market for college teachers may have ended the academic revolution. By "academic revolution" is meant the success of the American professoriate since World War II in becoming a virtually independent agency setting its own goals, selecting its own members, and evaluating its own performance without particular reference to the needs of the larger society.

It is this revolution which enabled the flight from teaching to take place and enabled professors gradually to cut down their teaching responsibilities until they were teaching, frequently, no more than one semester course a year. Now

that a surplus of college teachers is developing, the time may be ripe for new appointees to be instructed in their responsibilities as teachers, and contracts might indicate something of what those responsibilities are (as is now the case with a few junior college teacher contracts). Such a posture is likely to irritate a large number of professors and may tempt some into flirtation with trade unionism, but such is a danger which must be faced. If trade unionism does result, and institutions can function with unionism, then measures of teaching effectiveness must become as much a part of the contract as salaries, hours of work and the like.

The same market conditions make possible another reform. Since there is likely to be an oversupply of Ph.D.'s for the foreseeable future, institutions might well curtail Ph.D. production and redeploy faculty resources to preparing Ph.D.'s with some supervised teaching experience and some instruction in pedagogy and the nature of education and higher education. If a department of history which was producing ten Ph.D.'s a year could cut back that number to five without curtailing any faculty resources, enough time would actually be available to give some attention to pedagogy.

No discussion of the improvement of collegiate instruction would be complete this year without paying some attention to the emerging interest in the Doctor of Arts. At present the Doctor of Arts may be appropriate in a number of quite specialized situations. At the University of Miami, for example, that institution might well refrain from creating Ph.D. programs and concentrate on Doctor of Arts programs designed to prepare people to teach in the large junior colleges in that region of the state. And there may be several other areas in which such a pattern might seem to be appropriate. However, as a general substitute for the Ph.D. or a formidable competitor for the Ph.D., the Doctor of Arts is not likely to take hold. The sheer fact that there are so many Ph.D.'s now will tempt institutions always to select the Ph.D. holder over the Doctor of Arts holder simply because of the greater prestige which has traditionally gone with the Ph.D.

Lastly, some mention should be made of the movement of faculties to discipline faculty members. Heretofore, faculty members could only be disciplined for the grossest sort of offense and then disciplined by termination of appointment. Now, however, faculties at Stanford and Harvard have taken the lead in this matter and have begun to outline categories of offenses and categories of punishments. This step argues well for the improvement of instruction because, through the application of sanctions, professors may be forced to attend more closely to their duties as teachers.

All in all then, the situation is dismal throughout most of the country — rhetoric not withstanding. But there is at least a faint hope for the future. We must direct our attention toward realistically improving instruction. For if we cannot do this on our own, it will only be a matter of short time until others do it for us.

III

INNOVATION AND REFORM: WHY SO RARE?

Nothing is more constant in the history of higher education in this country than the clamor for reform. Yet when that history is examined closely, one is forced to conclude that very little meaningful reform has actually taken place.

This point can be brought home in thinking a bit about graduate education. When one looks back to the beginning of graduate education in this country, about a hundred years ago, one can hear the same criticisms heard today: it is not preparing college teachers, it takes too long to earn an advanced degree, the thesis is a wasteful exercise, language requirements are irrelevant, the oral examination is a meaningless ritual, residency requirements are arbitrary. These were issues at the turn of the century, and they are issues today. Nothing much has changed.

The pattern is repeated in the history of undergraduate education. For one hundred years the prescribed curriculum has been called "arid," the lecture method "dry," and the amount of time required to earn a bachelor's degree "wasteful." The student movement of the 1960's did not coin the adjective "irrelevant" — people used it in 1860 to describe the undergraduate curriculum then. History has a way of repeating itself in higher education.

This chapter will examine several of the more popular current criticisms of the undergraduate experience. Then it will describe briefly the typical professorial responses to these criticisms. After that, it will focus on several forces which may make the 1970's a period of substantial change in collegiate educational programs. Finally, after discussing several promising reforms that have begun to appear across the country, it will close by citing several institutional conditions which must be present if real reform is to occur.

I

One of the most widely held criticisms of higher education is that colleges and universities are staffed by professors who cannot teach liberally. In the words of William Arrowsmith, "nothing can be expected of a system in which men who have not themselves been educated presume to educate others." The villain in this scenario is the graduate school. Earl McGrath, for example, has remarked that the models of educational practice set by graduate schools have virtually eliminated liberal education. A few years ago, in an address at Hofstra College, Jacques Barzun claimed that the liberal arts college is either dead or dying, crushed from the top by the pressures of the graduate school, and from the bottom by the secondary schools which, for several years, have been appropriating more and more of the collegiate mission.

Critics of collegiate teaching are both corporate — the Carnegie Commission lamenting the flight from teaching — and individual — John Gardener's profile of the wheeling-dealing professor who has completely rejected his teaching role. But the picture is not wholly bleak. The Danforth Foundation, for instance, after spending hundreds of thousands of dollars, seems to have been effective in its programs to improve college teaching.

A second criticism is that college education really makes no difference in the lives of students. Philip Jacob's book, *Changing Values in College*, published in the 1950's, set the tone for this criticism by proving that with rare exceptions, colleges have little or no impact on their students. They arrive on campus divinely self-satisfied, and leave pretty much the same way. More recently, Feldman and Newcomb's study, *The Impact of College on Students*, has contributed greatly to our knowledge of this area. While they suggest that there are some changes in students, they are unable to trace them to specific things done by the institution. The same conclusion is reached over and over again in the literature of higher education — the curriculum does not seem to be very influential in students' lives.

Another criticism is made by dissenting students: the curriculum is irrelevant. What satisfies professors, the argument runs, is simply unrelated to the lives of undergraduates.

A fourth criticism is the lack of relationship between accepted visible standards and actual performance. Earl McGrath, for example, has demonstrated the lack of relationship between schools and departments generally judged excellent and the product they produce. Alexander Astin shocked the profession a few years ago with his evidence that, based on the Graduate Record Examination, it is not the student's institution that makes the difference in his performance; it is instead the strengths and weaknesses he had when he entered that institution. Students of equal starting ability score at precisely the same level on the Graduate Record Examination whether they attended the Ivy League schools or the so-called "invisible colleges."

There is a parallel lack of relationship between one's performance in college and one's performance in his vocational career. A decade ago, Dale Wolfe in his *America's Resources of Specialized Talent* pointed out that even when you include the first professional degrees in medicine, dentistry, and law with baccalaureate degrees, only about 30 per cent of first degree recipients are doing something vocationally which is related to the general field in which they specialized. Iva R. Berg in *The Great Training Robbery* brings the story up to date and documents the lack of relationship between successful performance on the job and what one actually studied in college.

II

What are the typical professorial responses to these criticisms of undergraduate education? First, some say, since there are no significant differences between experimental and control groups of students, why should we continue trying to change? There is, of course, the obverse point made a few years ago by Ernest Hilgard. He states that much of our research shows no significant differences between ex-

perimental procedures and traditional ones, but that should lead us to experiment further since we are not likely to hurt students in the process. It might be, he continues, that if we experiment more, we will finally discover something that works.

A second response to criticism comes from professors, deeply grounded in their disciplines, who feel they know what is best for students, so do not bother questioning them. What you usually get is the answer, in one guise or another, that "the curriculum should explore in depth those things in which I am competent."

Third, reform requires time and money which could be used better by subsidizing professors to do what they know is worth while. Money spent on institutional research or on elaborate counseling systems is money wasted. Resources are scarce enough, and what little we have ought to be used to raise faculty salaries or to release them from teaching to do research. Students will ultimately benefit from this.

Fourth, faculty are generally unwilling to criticize colleagues, in their teaching roles. It violates the gentlemanly traditions of the professoriate, although political quarrels and arguments in scholarly journals do not. Consequently, to suggest that the quality of teaching in a college or university is second rate, is to invite faculty to close ranks behind the notion that what goes on in a classroom is the professor's business. Suggestions to the contrary are unwelcome.

Fifth, when confronted with the growing array of technological teaching-learning equipment now available, a typical professorial response is, "we do not have the time to learn how to use it, even if we thought it would work, which it probably will not." Most professors are uneasy discussing educational hardware, so they avoid it altogether.

Finally, some say, students are not really very dissatisfied with the education they are getting. Some of the

Carnegie Commission studies suggest that the vast majority of American students have been fairly satisfied with undergraduate education, and that this is likely to continue. They are not excited about it, but they are reasonably satisfied. As Andrew Greeley has said of college alumni seven years after graduation, they view their college the way people viewed Willy Loman in *Death of a Salesman* — they liked him, but not too much. Students, their professors say, feel the same way about them.

The trouble with these responses, many of which have some validity, is that they could lead to an impasse in higher education. "Things are not perfect, but then they are not very bad either," the argument goes. "So why waste time and money trying to do something that is not really necessary?"

III

Why? One reason is that several forces operating in the 1970's may make that decade a somewhat different milieu from its predecessors, and the likelihood of meaningful reform may be greater than ever before.

First, the conviction is growing among the electorate and its elected officials that higher education has become too expensive and influential to be allowed to continue old practices. As long as higher education was a relatively inexpensive thing, dealing with a relatively small proportion of upper-middle class youth, it really did not make too much difference whether it was effective or ineffective. But we are now moving (as the Carnegie Commission suggests we are moving) so that by 1975 we will be using three per cent of the gross national product for higher education. By then, higher education will be the largest single "people-using" industry in the country. People, even now, are beginning to sense that there might be some validity to the contemporary gripe that higher education has become the pivotal institution in society, and as such, higher education has simply become too visible, too expensive, and too influential to be allowed to repeat

past mistakes. Hence, there are currently, in legislatures across this country, all sorts of efforts being made to force institutions into reform, while institutional leadership is trying to force professors into changing.

Second, there are changes in the extra-curriculum which may be of such profound nature that they will finally force changes in the formal curriculum. Frederic Rudolph remarks in several of his works that if you want to know what the curriculum is going to look like two generations hence, look at the extra-curriculum right now. He documents this with some extracurricular activities such as the literary societies, the growth of the fraternity system, and the development of musical and dramatic activities in the early nineteenth century, all of which foreshadowed major curricular developments. It is possible that this phenomenon is still operating, and indeed I think it is. For a long time the extra-curriculums, to students, really established discontinuities in their own education. Through all sorts of devices — dropping out to do something else, prolonging their education over an eight to ten-year period — students were sensing that some discontinuity was needed. This was all sub rosa for some time, and institutions simply would not publicly recognize it. Currently, of course, there are institutions now trying to find ways of institutionalizing discontinuities through overseas experiences, through leaves of absence, through facilitating exit and entry, to name a few.

Thirdly, there is better evidence as we enter the 1970's about how colleges have done and are doing than there ever was in the past. The whole state of impact studies gives us information that simply did not exist before. A fair number of economic studies of the costs of higher education are now available. Ten years ago, there were only two educational economists in the country, Seymour Harris and one of his students. That same year there were forty agricultural economists at Michigan State University alone. Educational economics simply was not getting attention, but times have changed and studies are multiplying. The computer is having its impact on colleges and universities at last.

Fourth, there is the advent of performance contracting. There are criticisms, to be sure, that have been leveled at performance contracting in elementary and secondary schools. Some of the early experiments reflected fraud in the assessment of outcomes, but now there are 60 to 100 or more instances across the country of educational institutions contracting with private firms to bring about stipulated changes in student behavior. It is still a growing movement which has to run its course, but remember that there is considerable interest on the part of political leaders in this movement. Many politicians feel strongly that one should at least look at the possibilities of performance contracting.

All of these forces, it seems, make for a different atmosphere in the 1970's than has existed in any other decade in the past.

IV

If this is true, it would be wise to look at some of the more promising innovations abroad now. This is by no means an exhaustive list, but it indicates the directions we seem to be heading.

First, there is a great deal of interest in changing temporal arrangements, going from the semester to the trimester, from the semester to the quarter, to the three-three-three, to the four-one-four, and so on. While calendar changes per se often do little, if they are tied in with some other profound changes one ought to look at them carefully. The modular curriculum developed at Colorado College seems especially promising, since it breaks with the tradition of uniform course packaging of other calendars. Their program is only two years old, but it seems to be working satisfactorily.

Second, there is growing interest in changing spatial arrangements. The movement toward house plans or cluster colleges at Santa Cruz or the University of the Pacific, for example, is worth attention. So is team teaching, the method

followed at Stephens College or Boston University. Block scheduling has been tried at Florida State University with some success. Students did not know it, but block scheduling put them into teams of students and teachers following a definite sequence of courses. These experiences with the rearranging of space and groups seem to have been fairly effective, but no one has yet analyzed and solved the costing problem.

Third, the use of students in the instructional process seems to be catching on, finally. This has long been validated in folkways and our own hunches. There has always been general awareness that the peer influence was powerful, but there is now a good bit of experimentation actually using peers in an instructional capacity. Currently, there is a great deal of interest in using peers, ranging anywhere from the use of undergraduates to teach languages, to the use of graduate peers to teach each other how to be college teachers.

Fourth, there are some promising developments in educational technology. Research has long since validated the effectiveness of television as an instructional device, although most professors continue to view it as no more than a classroom aid. Considerable experimentation recently with computer-assisted and computer-based instruction shows some successes and some failures. The fully computer-based course does not seem to be profitable at this point, but some of the computer-assisted courses are apparently producing important gains. Other possibilities include the use of videotapes and tape recorders, and there is speculation about the enormous potential which will come from videotape cassettes.

Fifth, there is growing interest in new methods of measurement and evaluation. Many institutions are experimenting with pass fail, although there is no evidence as to how well or poorly this is working. I personally am a little skeptical of the pass fail, believing that there is too much uncertainty about the meaning of those terms. That is, pass can mean anywhere from "he did not fail" to a "superlative" performance and the record does not say which. Al-

though the pass fail notion may not take, some variant of the letter grading system will emerge. The A, B, C, "No Entry" system has some potential. There is also growing interest in mastery testing, where every student is examined until he demonstrates complete mastery of the material. It may take a week, a term, or a year to do this, but the length of time is not important. Then there is some resurgence of interest in comprehensive examinations.

Sixth, there is mounting interest in off-campus experience, ranging from study in overseas branches to cooperative work-study programs, to attempts to get students off-campus for a limited time. All these efforts assume that education is not limited to what goes on in the classrooms, an assumption that deserves careful consideration.

Seventh, there is a general press for problem-oriented courses which draw on a variety of disciplines and are conducted for varying lengths of time.

Eighth, there is the application in a very tenuous way, in a limited number of institutions, of some recently discovered psychological theories. The developmental psychology of Erikson and Sanford, which is being interpreted by Joseph Katz and others, is gaining currency among some educators. There is also some experimentation with T-groups and sensitivity training. This is not yet evaluated but there is interest in some institutions.

Finally, a fair number of institutions have seriously gone back to Ralph Tyler's papers of the 1930's, and are trying to specify objectives, search for relevant learning experiences, and find relevant ways of evaluating the outcome. This exists in such places as the University of Michigan, where a group of faculty has put together a handbook showing professors how to use Tyler's system of stating objectives. A good sprinkling of full professors at the University of Michigan in the Arts and Literature college are actually doing this. The same is occurring elsewhere.

V

What are the institutional conditions that must exist if significant change is to take place?

First, strong, imaginative administrative support is essential if an innovation is going to take. It is abundantly clear that in our system of education faculty members are educationally conservative, while administration is essentially non-conservative. It is the administration which takes a look at the broad mission of the institution and tries to suggest new directions, and it is the faculty which, all too often, resists. If innovation is going to take place, it requires the same kind of strong administrative leadership that Charles Eliot expressed when he announced to his board of trustees at his inaugural address that Harvard was going to move toward the free elective system, or that Hutchins expressed when he said the University of Chicago was going to reemphasize undergraduate education. Time and again, successful innovations have been supported by wise administrators. For example, a new engineering course at West Virginia University has required staff support from a variety of disciplines. In determining what it was that made such support possible, it appeared that its backers included the president of the institution and the dean of the School of Engineering. Or several years ago, at Michigan State University a situation existed where the engineering faculty had felt unfavorably toward the general education program. Then a new dean took office in the engineering school. He felt strongly that general education belonged in the engineering curriculum, and two years later his faculty's feelings about the program had changed, with no significant change in personnel.

Second, there is the matter of institutional readiness. This is hard to define, but without it innovation is not going to have much chance. When an institution in sufficiently serious financial trouble finds the right reform, it takes. But if the reform is attempted even six months before realization, it probably will not work.

Third, there must be institutional willingness to provide substantial financial support. Too frequently, innovations have been ad hoc things, either making use of some limited free capital within the institution, or, more frequently, by using extramural capital. A number of innovations are quite imaginative and do seem to bring about some changes in the lives of students, but once the extra capital dries up, the innovation dies.

The perfect example was a serious attempt made by the Ford Foundation in the 1950's to improve teacher preparation in Arkansas. For a while in some of the little liberal arts colleges in Arkansas and in some of the teacher's colleges, there was a large amount of experimentation with ways of making the liberal component of teacher training much better. But when the Ford money dried up, innovation dried up, and those schools went back to their time-honored practices. It was almost as though the Ford money had never been there. If an institution is serious about bringing about major change, it must accept the full cost of that change in the long run and be willing to make the necessary financial commitments.

Fourth, innovation to be successful must be congruent with institutional philosophy.

Fifth, there must be technical competence on the part of the person directing the innovation. A program for the preparation of teachers for inner-city schools produced some outstanding results because the director of the program was unwilling to try to teach teachers until he had had actually experienced the teaching that he was going to prepare people to do. So at great personal sacrifice to himself, if he were going to prepare teachers to teach kindergarten he spent the previous year teaching kindergarten full time so that he understood something of those problems. Many promising innovations have failed because the person charged with assessment was technically incompetent, and his data when he finally produced them were suspect, not only by the sophisticated but by the unsophisticated as well.

Finally, innovation will fail unless there is a visible payoff for students and faculty. While love might allow a person to work to the limits of endurance for one or two semesters, unless his efforts are amply rewarded, the program will die. Innovative programs require special efforts, and the efforts must be rewarded in a legal tender that is recognized by students and faculty. For faculty, financial rewards are the most attractive. For students, the more creative and satisfying use of their time is important. Without these incentives, good ideas will not succeed.

IV

EVALUATION, ASSESSMENT AND PUBLIC ACCOUNTABILITY

Educational measurement and evaluation is a relatively young subspecialty in higher education, but its potential significance is very great. Because it is a fledgling movement, most of the generalizations that follow are tenuous.

Its youth is clear because most of the leaders of the movement are still alive. Ben Woods, one of the founders of the Cooperative Test Service, is as alive and imaginative as ever. James Conant, who as president of Harvard was instrumental in bringing about the creation of the Educational Testing Service, is still active. Ralph Tyler, the peripatetic evaluator *par excellence* is still working in the area. H. H. Remmers, who did important work following the contributions of the Thurstongs of Chicago on the measurement of attitudes, died just recently.

Some of the people who were involved in evaluation during its formative years have shifted their interests elsewhere. Lee Cronbach, who worked with Tyler at Chicago in the 1940's, has moved to Stanford and has become much more interested in the mathematical substructures on which evaluative systems can move. Ben Bloom has moved away from evaluation into studies of childhood. Paul Dressel has moved into studies of higher education. N. L. Gage is doing research on teaching.

If evaluation is to become a sustained intellectual movement, its staying power will have to be increased. It may be, however, that this will not happen. With the exception of SAT and ACT, evaluation really has never established the broad financial base required to sustain an intellectual movement in the sense that the classical tradition was sustained early in the history of American higher education, or that the general education movement was sustained more recently.

Educational measurement and evaluation were once hailed as holding a key to educational reform. During the late 1930's, 40's and early 50's, evaluation was in full swing, and many people felt that once the problems of evaluation and assessment were solved, the logical step of solving some pedagogical and curricular problems could be taken. Then evaluation fell into disrepute and disuse. During most of the 1960's evaluation was almost a dirty word. Assessment was something that one didn't need to worry about. But now it seems that there is evidence to suggest that measurement, assessment and evaluation are once again on the rise.

When evaluation was first popular, it produced several important landmarks, some of which still govern what we actually do. The Progressive Education Association's eight-year study, completed in the late 1930's, broke the stranglehold of the colleges on the comprehensive secondary schools and allowed the secondary schools to think about indigenous curricular and instructional molds and not be required to offer courses simply because colleges required them. At one time, of course, secondary schools were preparatory for colleges, and so there might have been some half-baked logic for this stranglehold. But during the 1920's and 30's, when the comprehensive high schools really developed, only a relatively small proportion (5-15 per cent) of their graduates went on to college. The PEA study showed that the pattern of high school courses had very little effect on college performance.

The second landmark, the Study of General Education in School and College, happened to be a study of some of the elite institutions—three ivy league colleges and six private preparatory schools. Done in the late 1940's and early 50's, the study discovered that there was enormous overlap between what youngsters were studying at Groten, Phillips, Exeter, and Andover and what they were taking at Harvard, Yale and Princeton. Stemming from this discovery came the whole advanced placement testing program which said, in effect, that if youngsters were going to take college work in secondary school they ought to get some kind of recognition for it.

The third landmark was the Cooperative Study of Evaluation in General Education. Like the other two, it provided the groundwork for subsequent studies. Along with the work of Nevitt Sanford at Vassar, Rose Goldson at Cornell, and Dressel and Mayhew at Michigan State, it was basic to Philip Jacob's study *Changing Values in College*. Out of the Cooperative Study came many of the personnel who subsequently developed the revised versions of the Graduate Record Examination and a number of the professional examination programs. One looks at the list of the committees which developed those tests and the more recent College Level Examination Program, and finds that a disproportionately large number came from the hundred or so professors who learned something about psychometrics in the Cooperative Study.

But the movement began to decline during the 1960's until "evaluation and assessment" was downgraded entirely. One sure way of getting turned down for a Ford Foundation grant in the 1960's was to have a section on evaluation. The Ford Foundation simply was not interested in this. The Danforth Foundation felt that it was much more important to start doing something than to do something and then try to assess the results.

There are several reasons why this decline took place. First of all, too many evaluation studies resulted in no significant difference. Time after time, the testing office, the evaluation office, the testing service, or whatever, produced findings of no significant difference. Who is to blame the professors when they say, "Don't waste time and money on evaluation; let's simply go ahead and do what seems to be logical."

Second, the individualism of faculties during the 1960's, which was fueled by favorable market conditions, allowed them to resist scrutiny. All sorts of things happened simply because faculty members were in short supply. I happen to believe that there is considerable logic to the general education movement. But during the 1960's, with recently trained

doctorates in short supply, the request that a new Ph.D. teach a staff-organized course in general education was enough to encourage him to go someplace else. This individualism, reinforced by the favorable market conditions, allowed faculty members to reject evaluation of their work.

Third, the evaluation movement went into decline because of a lack of technically competent people to carry on the sophisticated kinds of work that psychometrics made possible. The work of Tyler had produced the sophisticated technology, yet there were few people who could operate on that level. Many ill-qualified persons were hired as directors of evaluation services, and they produced totally inadequate reports. Hence the whole movement became suspect.

Fourth, the affluence of the 1960's permitted all kinds of experimentation without any press for evaluation. As long as the "while-you're-up-get-me-a-grant" attitude prevailed, who should worry about accumulating evidence? We were so concerned with growing, increasing our capacity by close to five million during that period, that our energies went into expanding programs and we could not really take the time to assess what had happened.

Finally, there is the decline of the general education movement during the 1960's which for all sorts of reasons had been historically related to the evolution of measurement, assessment and evaluation. It is the general education movement, for example, which provided the large number of courses for which large scale assessment techniques were admirably suited. When professors reject the staff-taught general education courses, and each professor is free to do as he pleases, the large scale techniques of assessment are no longer appropriate.

But it seems that interest in and concern for measurement, evaluation, and assessment are again in the ascendancy. How high the ascent will be, I am not sure. But I am struck with the potency of some of the forces which seem to be operating. Let me enumerate several.

The first is that there is a public demand for evidence

that education is worth the cost. As long as education was relatively inexpensive, relatively uninfluential, concerned with a relatively small and homogeneous segment of the population, people did not worry too much. But when we start talking about an enterprise which in some states is using fifty per cent of the available money, which is the largest industry in the nation, which is going to cost about three per cent of our gross national product, we are talking about an enterprise for which people demand some evidence of worth.

Second, there is the impact on public thinking of such things as the National Assessment Project and Project Talent. People have begun to think quantitatively about the products of their schools and their colleges and universities.

A third factor is the growing public awareness of the need to find out what might work for the education of the disadvantaged. As we have tried to move intensively as a people into education of the disadvantaged, the same question comes up time and again in the public's mind: how can we obtain evidence as to what programs for this segment of the population do and do not work? This is essentially an evaluative question.

Another factor is the whole question of grades and the search for new sources of evidence. The student protest movement of the late 1960's, which said, in effect, that much of the grading system is capricious, encouraged a search for new ways of getting evidence about how students learn. Once this question is raised, we are clearly in the realm of evaluation.

The marketplace itself is provoking a new interest in evaluation. Just as the affluence of the 1960's contributed to the decline of evaluation and measurement because there were no pressures to evaluate, so the end of the academic bull market contributes to an increased interest in evaluation. There is abundant evidence that there is need for continued experimentation and innovation, but we can no longer afford to innovate without hard-nosed evaluation of our innovations.

We are being forced to ask the key question: how well does this experiment work? The time has long since passed when you can just take a seat-of-the-pants guess about the success or failure of a program.

Several different things need to be said about the nature of evaluation. First of all, the evaluation process, rationally conceived, is almost exactly the same process as that which should be involved in creating effective teaching or creating an effective curriculum. Remember Ralph Tyler's formulations about the evaluation process? There is no other mode which meets all the conditions necessary to develop effective teaching, or effective curriculum building, or effective measurement. Tyler told us first of all to start off with a broad statement of educational objectives which is fundamentally a value statement beyond which you cannot go, "to develop the Christian scholar," for example. The second step, according to Tyler, is to specify the kinds of human behavior this Christian scholar actually demonstrates. Once these are specified, appropriate learning experiences must be developed. What would a reasonable person say is necessary to produce this kind of behavior?

This is no easy process; it requires imagination, a great deal of thought, and the examination of a wide range of procedures and practices. The next problem is to obtain evidence as to whether this behavior has indeed been developed and demonstrated. Finally, according to Tyler, you return to the initial value statement, the broad statement of objectives, and ask the question: was it or was it not achieved? If it was not, what are the reasons?

As this general scheme, fundamental to the whole evaluation-assessment movement, is made operational, it presents us with several domains or categories within which we can operate. The first of these, and the most emotion laden, is probably the evaluation of teaching performance. While far from being perfect, there are currently available a number of techniques which we can use to evaluate teaching perform-

ance much more effectively than the kind of visceral judgment made so frequently.

First, there is the use of student evaluation of teaching performance. Second, there is the possibility of classroom visitation and here I do not think one needs to expect highly complex rating forms by which classroom visitation can be made operative. Classroom visitation is an important means of evaluating teaching, and even in some of our major research-oriented universities it is likely to come into use. Actually, if you think about education, there are only several sources of evidence which can be used. There is the testimony of somebody who experiences it; there is the testimony of the person who administers it; there is the result of observation of the act, and there is the judgment of performance. Those are about all the options you have. The evaluation that comes from the visitation of classes speaks directly to one of those categories.

Third, there is the possibility of using videotape recordings to evaluate teaching. It is possible now to videotape a performance of the teacher and to have a panel of persons look at that tape and come to a remarkably reliable judgment of what is being seen. Now, when we can solve the problem of reliably noting what goes on in a classroom, we have an important technique by which this portion of the evaluation can be performed.

Next, there is the movement of requiring commentary about teaching effectiveness through annual careers conferences before administrative sanctions are imposed. Some institutions are encouraging students to develop published evaluations of faculty performance to guide students in selecting courses. Whatever the method, evaluation of teaching performance is gaining support rapidly.

A second area where evaluation is being used, is in the significance of grades. In the past, grades have been notoriously unreliable, capricious, and unrelated, really, to the stated objectives and purposes of courses. During the 1960's,

aided in part by student protest and dissent, many institutions moved to a pass/fail system of grading or to other nontraditional systems of evaluation. Currently there seems to be a stepping back from the pass/fail, credit/no credit, honors/pass, and so forth because the classroom climate, testimony suggests, is really different when you go to these options, and not necessarily in a good way. There is the very real point, as described so well in *Making the Grade*,[7] that grades are a powerful motivating force, and that if they are not there people indeed will do different and often lesser things. Evidence is mounting to support this judgment.

There is also a growing awareness that pass/fail requires a kind of subjective interpretation on the part of the viewer which the letter grade really never required. The pass grade can mean anything from "superlative performance" to "he didn't fail." And when one relies on a clerk in a registrar's office to make that interpretation, both students and faculty come to question whether that is a good idea. Probably a reformed variant of letter grades will return simply because, in spite of some reformers who argue that colleges and universities should get out of the certification and credentialing business, we are still in that business, and certification and credentialing require a somewhat standardized index of what a person has done. But as we move back to this, hopefully we will place much greater attention on making reliable the ways by which we arrive at those indices — the tests we use, the inventories we develop, and the ways in which we assess performance. Much greater attention will be given to this problem of reliability. In this light all the current discussion of changing the grading system misses the real problem. The real problem is to make grading reliable, whatever the system happens to be.

Another area increasing in importance is program evaluation, especially the assessment of new programs. Much innovation has not been assessed, and at least one reason why some of it has not lasted is that there has not been persuasive

[7] Howard S. Becker, Blanche Geer and Everett C. Hughes, **Making the Grade: The Academic Side of College Life** (New York: John Wiley & Sons, Inc., 1968).

evidence which can convince a central administration, a board of trustees, or a legislature that the innovation is worthwhile. Program evaluation is difficult and time consuming, but it can and should be done. It requires several elements: the collection of a broad base of pre-test and post-test data including affective material; periodic, systematic sampling of performance throughout the program; periodic recording of observations; terminal questionnaires; and end-of-experiment seminars where people who are responsible come together, look at the data, and ask "what does it all mean?"

This approach to evaluation is time consuming and difficult, but unless we are willing to embrace the concept of measurement, evaluation, and assessment, colleges are going to be faced with answering three threatening but warrantable assertions. The first is that curriculum and instruction have little relationship to student growth in college. This is what the picture is currently, and legislators and potential donors are quite within appropriate limits to say, "Either present some evidence that this is not so or go away with your requests for continued program increases." The second assertion is that the size and richness of course offerings have little if any relationship to student performance, student satisfaction, or the overall worth of departments. Stanford University, for example, spends a great deal of money cultivating its prestige, its image, and its quite distinguished faculty and yet the kind of faculty Stanford has accumulated has no relationship to the educational advances that the students make. As long as this can be a warrantable assertion, prospective donors are proper in raising questions, and the questions they raise can only be answered through much more systematic evaluation. At present, college degrees signify only a collection of credits. Any conversation about demeaning the dignity of a bachelor's degree is nonsense, because nobody can define what a bachelor's degree is, except in numerical terms of credit. The only way we can move beyond that point is to try to stipulate competence and then try to demonstrate whether or not competence has been achieved. The only way we can do this is to embrace the evaluative activities described above.

The third assertion is that neither the content of education nor the amount of education is related to job performance. One could make a fair argument that the contribution which education makes is primarily a credentialing one; but this says nothing about how well or how poorly an individual will do on the job. There are a couple of fairly important court decisions on this matter in which corporations have been required to either prove that their testing program or educational requirements are demonstrably related to job performance, or to eliminate those tests and requirements as criteria for employment. There is mounting evidence that the substance of education and the quality of job performance, at this point, are unrelated.

The only way these hostile assertions can be rejected is through the techniques and approaches of evaluation. Unless evaluation is attempted by institutions and data made available in a reasonably honest and responsible way to the public, other agencies are going to do it for us. A number of legislatures are looking very seriously for external agencies that will evaluate performance and report back to them, and these agencies are not sensitive to the nuances of university life. The state of California, for example, aided by a conservative governor, is calling on the budget office of the state to make an audit of the University of California in all its functioning and to present evidence to the legislature and the governor on the basis of which important decisions are going to be made.

We are at a critical point, especially in the public sector, but also in the private. If there is not a more systematic job done in evaluating an institution's performance and publicizing it in an honest and responsible way, somebody else is going to do it and colleges are not going to be happy with the results.

V

A PANORAMA OF ACADEMIC CHANGE

The context within which American higher education will evolve during the 1970's is most clearly revealed in a series of contrasts. In 1960 the general mood of those intimately involved in collegiate education was optimistic and expansionist. The pleas made during the mid-1950's that higher education had the potentiality of becoming a major instrument of public policy appeared to have been heard as the states, federal government, and private benefaction made ready to support colleges and universities on an unprecedented scale. A new President exalted and honored the intellectual community while privately controlled institutions of higher education could proclaim through self-studies that they stood on the verge of greatness. Foundations, having given some attention to improvement of faculty salaries during the 1950's, directed support in the early 1960's to institutional programs which would emerge as powerful centers of excellence, while hopeful denominational groups once again actively entered the field of creating new institutions. Just illustrative of the times was the claim of the president of New College in Florida that the Congregationalists were creating an institution in Sarasota of such luster as eventually to compare with the other great institutions along the Eastern seaboard originally created by that denomination.

The euphoria of the early 1960's, of course, has changed as the end of the academic bull market was finally accepted as reality. Privately supported institutions face a generally bleak financial picture with some questioning seriously whether they can survive the next several years without direct public subsidy of massive proportions. A federal administration, at least through the comments of some of its spokesmen, seems to have taken an anti-academic if not an outright anti-intellectual posture, and in the states, especially those having experienced severe campus upsets, colleges and universities and their leaders have been criticized, castigated and threatened

not only with loss of funds but a curtailment of traditional academic freedom.

At the beginning of the 1960's, college faculty members were in short supply and predictions based on earlier changes in birth rates implied that short supply was likely to continue indefinitely. The National Education Association in its biennial report demonstrated how the proportion of faculty members possessing the doctorate as they entered their first assignments dropped steadily from slightly over thirty per cent to below twenty-five per cent, and argued that, unless massive assistance could be provided universities preparing future college teachers, the deterioration in quality might continue forever. Major foundations responded with programs to increase the supply of college teachers and to improve their preparation. The several federal agencies intimately concerned with higher education developed impressive fellowship and traineeship programs which would produce the needed holders of doctorates, and graduate education moved into the 1960's as the fastest growing segment in higher education, even exceeding the anticipated growth rates of junior colleges. Senior faculty members found themselves in extremely short supply in the presence of an expanded social demand for their services.

Thus the concept of the peripatetic affluent professor became a reality. Professors, after a tradition of several hundred years of overwork and under-compensation, found themselves able to reduce their teaching loads to manageable size and to increase their income to at least a comfortable level of existence. The national goal established by President Eisenhower's Commission on Education Beyond High School of doubling faculty salaries between 1958 and 1970 seemed achievable, with the expectation that the 7 per cent annual increases in salaries would continue into the foreseeable future. Even as late as 1967, university presidents foresaw no slackening of the escalation of faculty salaries. In the second year of the decade of the 1970's, however, all that had changed. Ph.D.'s had been overproduced and plans for the decade, if carried out, would result in a likely annual produc-

tion of doctorates of between 70,000 and 80,000 a year by 1980. Young holders of Ph.D.'s would wait a year or more before receiving their first position, with many examples available of that first position being in a menial capacity rather than that of a scholar-teacher in a favored institution. In some states faculty salaries were stabilized without even a cost-of-living increase; and even in the wealthy, prestigious and frequently marauding private institutions, changes in faculty salaries averaged less than the rate of inflation for that year.

College faculties and the public at large entered the 1960's persuaded by such things as Philip Jacob's book, *Changing Values in College*, that students were apathetic, quiescent, and divinely self-satisfied, aspiring only to a split-level home and a comfortable materialistic existence. There was the general belief that students ought to take a more active interest in the social, ethical, and cultural concerns of society and a faith that this shift in attitudes and values could be brought about through curricular and pedagogical means. Conferences were held and books edited describing how to bring about changes in student values, with not even the slightest indication that such a radical change might develop within a decade as to produce a generation of adults actually frightened of their children. By December of 1971, of course, all this had changed. University faculties and presidents have perfected plans to contain campus violence, and while quiet seems once again to have settled on campus, there are fears that violence is still close to the surface.

In many respects the decade of the 1960's could be compared with the heavenly city of the 18th century, characterized as it was by supreme faith in science and rationality. Scholars, legislators and public leaders firmly believed in the exponential increase in knowledge produced by research, and could foresee a time when virtually all human ills could be destroyed through cognition and scientific manipulation. This faith in rationality was reflected in all fields. Behavioristic political scientists believed they could predict political tensions far enough in advance to reduce and then eliminate

dangers. Psychologists, counselors and educationists believed they could so manipulate stimuli and reinforcement as to produce a fitting denizen for Walden II, and the testing movement so flourished as to be confident that with expected financial support, even fundamental personality traits and character patterns could be measured and ultimately modified through psychometrically based procedures. Heart disease would be ended, atomic power would produce all needed energy and scientists visualized themselves as the new philosopher kings of a new republic. But, within a decade, that condition, too, had changed. Average longevity in the United States stabilized, the relative position in the United States for the prevention of infant mortality dropped significantly, and attempts to eradicate poverty, ignorance, and racial discrimination through behavior modification styles of education proved fruitless. The early promise of language laboratories and reinforcement theory did not solve educational problems, nor did Keynesian economics prove adequate for controlling the economy. By 1970, students were rejecting rationality and searching for a new romanticism, placing faith in feeling and emotion and rejecting the fruits of a reasoned existence. Carefully conducted studies of national problems were rejected *a priori* by a federal administration, and retrenchment in research support became the rule on the ground that basic or pure research had generally been unproductive. Even the Department of Defense, long the benefactor of basic research on university campuses, partly convinced itself through such things as Operation Hindsight that basic research had contributed little to the well-being either of society or the Department of Defense.

Nowhere is the contrast between 1960 and 1970 more apparent than in beliefs and processes of academic governance. In the early 1960's the traditional presidential-oriented style of governance was the rule. Boards of trustees were clearly the legitimate policy-making body and presidents controlled finances, extramural relations, appointments and conditions of student living. In return for quiescence about such matters, faculty members were allowed to offer the courses they wished in ways which pleased them, and to become re-

search or consulting entrepreneurs if conditions and talent allowed. Faculty senates were rarely discussed, trade unionism was unfeared, and only ten states had created supra-institutional boards of coordination or control to restrict institutional aspirations and competition. In even the great, presumably faculty-dominated universities, this tranquil style of governance prevailed. It was legitimate, it assured the academic good life, and none seriously questioned that other alternatives would be forcefully employed before the decade ended. But in December, 1971, change was everywhere the rule. The City University of New York and some thirty other institutions engaged in collective bargaining and operated with a union contract. In California, the Board of Regents and the Board of Trustees for the state colleges withdrew time-honored prerogatives from the heads of campuses and from faculties themselves; and students sat, even as voting members, on presidential search committees and committees charged with decisions about faculty salary, promotion and tenure. Serious students of academic governance had become persuaded that the limits of collegiality had been reached and that completely new academic political vehicles had to be invented if the multiversity were even to hope to govern itself. The presidential-oriented style of administration had so dissipated that the presidency in many places had become an unloved, unhonored, and unwanted role, possessing neither the power nor prerequisites to maintain itself, much less sustain the institution for which it was held responsible.

The early 1960's also witnessed the high tide of faith in the student personnel movement as a way of enriching the extra-class life of students and providing the amenities college students should have. Centralized counseling centers, testing bureaus, offices of financial aid, housing and deans of students offices had become highly professionalized and well supported. Learning and living were viewed as two sides of a coin which could be contrived through the professionalized manipulation of trained personnel workers. By 1971, however, institutions were seriously considering getting out of the college housing business, curtailing or decentralizing counsel-

ing and guidance centers, ending formal student activities programs, and turning over to the students themselves responsibility for all conditions of extra-class life. Parietal rights, student-dominated judiciary, and the death of *in loco parentis* had become the rule, and theorists of academic governance could foresee an end to the traditional role of dean of students, replacing some of his previously held responsibilities with a university-paid public prosecutor and public defender. The potential educational benefits from unstructured and open administration of discipline were forsaken in favor of precise constitutionalism and specification of offenses, penalties, and academic due process, and this was reemphasized as the courts began to take cognizance of academic matters which previously had been seen as of no legitimate concern of the public judicial system.

Two other elements complete this panorama of change. Private higher education in the United States entered the 1960's convinced that student demand for its services was so intense that institutions could each year become more and more selective, and each year charge higher and higher tuitions, which would allow private higher education to be more than competitive with the public sector. During the early 1960's, admissions directors would report with pride how each year's freshman class had a higher SAT average than the preceding class. Administrations borrowed to build new residence halls, new libraries, and science buildings, in the faith that the demand produced by an accelerating birth rate would always be present. But during the 1960's, the public sector of higher education began to expand, and by the 1970's had so created new capacity as to deny many private institutions even those enrollments necessary to pay for amortization of their bright new facilities. The shift in proportion of students being educated in public and private institutions accelerated so that some could anticipate before the end of the century that private higher education could be dealing with no more than ten per cent of the collegiate population. Even distinguished private universities with substantial endowments found themselves in such financial difficulty as seriously to consider offering themselves to state systems.

In 1960 the ideal of universal higher education seemed realizable. It was in 1964 that the Educational Policies Commission could reason that the question was not whether, but *when* the goal would be realized. But by the 1970's, even after the efforts to bring minority group members in greater proportion into higher education, serious questions were being raised as to whether post-secondary education was really appropriate for large numbers of students. Gradually a feeling emerged that a generation of youth had been dragooned into receiving an education which it neither wanted, needed nor could profit from. While the Carnegie Commission on Higher Education could still urge universal opportunity for higher education, and the College Entrance Examination Board could quest after universal free access to higher education, others quite influential were saying that these opportunities should not be utilized by important numbers of students.

Within that context many issues are discernible. However, a few seem so central with respect to the emerging shape of higher education as to deserve special mention. The first of these is the likelihood of a changed conception of academic freedom and other related academic values. The currently accepted notion of academic freedom received its first formulation in 1915 and a reformulation in 1940. It was intended that a scholar should be protected in all situations on the ground that his thoughts and statements were the essence of his total professional being. In the light, however, of the changed conditions during the 1960's when faculty radicalism and examples of violent protest became significant, and when some faculty behavior as professors could be viewed as somewhat less than responsible, demands for a new and perhaps limited formulation of academic freedom emerged. Some political leaders and boards of regents have attempted to limit academic freedom directly and outside the University. Were this to happen, the important elements of academic freedom could be seriously jeopardized. A few institutions, through faculty committees, have undertaken studies to determine how professors might be disciplined. The first tentative efforts along this line have faltered because of a general

unwillingness to challenge directly ancient formulations of academic freedom. Whether faculties themselves will reform the concept cannot be known. However, some reformulation seems inevitable and with it will come a significant change in the fabric of higher education.

The second transcendent issue is that of administration, organization and governance. Five general styles of governance have been tried and have been found wanting to cope with emerging conditions of the 1970's. First, there is the historic presidential and administrator-centered system of governance. There is the more recently developed senatorial style resting on constitutionalism and consisting of delegation of powers to each of several constituencies so that something approximating a system of checks and balances results. Then there is the adversary style which implies unionism, collective bargaining, professional negotiations, and an eventual contract which assigns definite responsibilities to management and uses the contract to insure that management is fair, just, and efficient. Rarely tried but often advocated is the faculty hegemony system which sees the faculty itself as the most important single constituency. Administration exists simply to provide the necessary conditions for a syndicalist faculty to perform as it wishes. Finally, a few institutions have experimented with a community style of governance which seeks to bring all of the constituencies into some system of participatory democracy. In the fall of 1971, each of these has revealed some strengths but considerable weakness; and the quest is on to invent a new system of governance. One recommendation is for a system not unlike that of ministerial responsibility which is characteristic of the parliamentary democracies. Another model really sees the creation of a new feudalism within the large institutions in an attempt to decentralize sufficiently so that individual wishes, aspirations, and feelings can receive adequate attention. And some even ponder the possibility of a new version of absolute monarchy as possessing the only essential strength requisite to governing the contemporary collegiate institution. The sheer volume of study and opinion on the problem of governance indicates the serious efforts being made to resolve the issue.

Even more fundamental is a matter which once seemed generally regarded as having been settled for all time. This is the question of who should pay for higher education. Historically, it has been believed that the older generation should pay for the higher education of the younger through taxes, parental support, and private benefaction. The young have been provided their educational experience on the assumption that they then would perpetuate the tradition. However, currently there is serious discussion as to whether this concept is valid. There is the growing belief that when all benefits are considered and compared, the chief recipient of value from a college education is the student himself. If this be true, he should be required to pay, whether immediately or over a lifetime of earnings. It is this changed belief which lies behind the notions of a voucher system, a higher education bank, and the theories involved in raising tuition to actual cost. This changed conception seems clearly implied by the efforts of the federal administration to restrict fellowship and traineeship programs, while at the same time encouraging the private financial community to make available long-term, low interest, insured loans even for graduate students.

This matter can be related to the issue of financing private institutions. First, the American system of deploying its educational resources through both public and private channels is a somewhat unique phenomena. Most of the nations of the world deploy their resources purely through public channels. There is likely to emerge serious debate as to the validity of this basic item of public policy. Assuming, however, that that debate will result in reaffirmation of the values of a private sector in a pluralistic society, then will come the serious question of technique. In the past teacher subsidy through low salaries, tuition, and private benefaction were the principal means of support, augmented recently by public support for specific categories of activities. These resources have gradually proven inadequate and the search is on for new methods. One direction of search is to argue that private institutions have simply overexpanded themselves, and that merely cutting back on the rank growth of program would be enough to maintain vitality. Another direction says that

only some form of sanitized public support which still allows private control will preserve the private sector. By 1971 this direction seems to have become the prevailing one. However, it is by no means fixed. The challenge is that the matter must be resolved within the next five or six years if the private institutions are to remain viable and influential.

The question of the involvement of the university in direct political action also vexes. There was a time when conventional wisdom held that the university was remote from political activity, and properly so. Such a conception came to be challenged by radical elements within the university who charged, and could prove, that many of the actions which the university took, whether it be land policy or contract research, were essentially political in character. Thus, demand arose for still more openly proclaimed university involvement in political affairs. The efforts of some universities to facilitate faculty and student involvement in political action in the fall of 1970 were experiments in more direct political activity. But, if institutions do become political, they must expect political sanctions to be applied. The predominance of opinion from responsible institutional leadership seems to be against using the university politically. Whether this opinion can remain firm and governing in the face of strident demands for change is the unresolved element.

Then there is the matter of curricular content. In the past, at different times, the undergraduate curriculum throughout the country seemed to have a common focus. At one time, the substance of the classical heritage was the focus, and more recently the general education movement was generally accepted, at least in theory. Those notions seem now moribund or dead but nothing new has replaced them. There is considerable experimentation and frenzied innovation, but little agreement. And the same lack of agreement characterizes graduate and professional curricula as well.

A last issue is a fundamental one, yet of substantially different order—that is the series of questions concerning predominantly Negro institutions, whether public or private.

There is the point of view that most of these are extremely weak institutions and should be denied support; but this is countered by the fact that, although predominantly white institutions have begun to absorb larger numbers of Negro students, the predominantly black institutions still provide the only viable higher education for the large majority of the Negro community. How this issue is resolved is likely to have enormous implications for the actual structure of higher education in the South, but this matter is only now being seriously discussed.

Each of these issues requires direct resolution. However, the general nature of resolution can be predicted by which of several general postures higher education in its totality assumes. Although there is considerable evidence to suggest a continuing crisis climate, there seems even more impressive evidence to suggest that the issues of the 1970's can be resolved more tranquilly. First, there is the fact that although higher education will continue to expand, it will do so at a much slower rate during this decade, and with a perceptibly slower growth or even reduction in size by the 1980's. This general deceleration should allow energies previously used just to keep the enterprise functioning, to be redirected toward resolving fundamental questions. Given greater time and energy, those responsible for planning and operating the higher educational establishment have available several benefits previously unavailable, especially during the last part of the 1960's. Detailed and sophisticated knowledge about higher education and how it functions has begun to pour forth. One example is the steady stream of reports emanating from the Carnegie Commission on Higher Education.

As this knowledge continues to expand and is gradually codified, a much more intelligent base for issue resolution will be available. Much of this information is contributing to a more realistic view of what higher education can and cannot do. The hyperbole of the 1950's and early 60's is being shown to be just that. While higher education is important in society, it is far from the pivotal institution, and there are other institutions which may assume some of higher educa-

tion's responsibility more efficiently than can existing colleges and universities. The separate, large, independently supported research institute is simply one example. As a more parsimonious view of what higher education is and can accomplish is validated, the unrealistic expectations which have been involved in much of student protest are also likely to shrink. As the overall significance of higher education is placed in sharper perspective, the issues themselves are likely to be seen as manageable without resort to crisis solutions. Part of this growing information about higher education comes from the student protest movements of the 1960's, which did point to serious deficiencies in colleges and universities. Reluctantly, some of these valid lessons are being comprehended and changes brought about. As this process continues, lessened tensions should result.

In many ways, the fall of 1971 should be a time of optimism. Problems are great, issues acute, yet higher education may be approaching a status of greater maturity, hence of tranquillity and of wisdom. Those characteristics should augur well for the future.